

ME-16-1 South White Lake Shoreline Protection (Will's Point to the western shore of Bear Lake)

Coast 2050 Strategy – Regional 16 – Stabilize Grand Lake and White Lake shorelines

Project Location – Region 4, Mermentau Basin, Vermilion Parish, south shore of White Lake north of Pecan Island

Problem – The south shoreline of White Lake is retreating at an average rate of 15 feet per year as a result of wind-induced wave energy. As the shoreline south of Bear Lake erodes, it could breach low marsh management levees and increase interior marsh loss rates in the area.

Goals – Stop shoreline erosion and promote accretion landward of the breakwater. Prevent future land loss in a marsh management unit south of Bear Lake when the existing low levees breach

Proposed Solution – A segmented breakwater at the –2 foot contour with a five-foot wide crown at an elevation of +2 NGVD would be built. The 330,000 tons of stone would be placed on geotextile. There would be 20-foot wide fish dips at 1,000-foot intervals. They would be lined with concrete or rock smaller than the 24-inch stones used in the rest of the breakwater. These dips would crest one foot above the existing –2 foot bottom. A flotation channel would be necessary and all material would be cast inshore of the breakwater.

Project Benefits – This breakwater would benefit a total area of 1,856 acres; 1136 acres of open water and 720 acres of marsh. It would protect and create approximately 424 acres of marsh over the 20-year project life compared to the without-project condition.

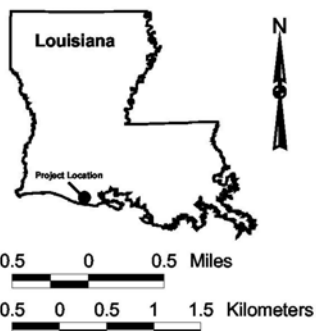
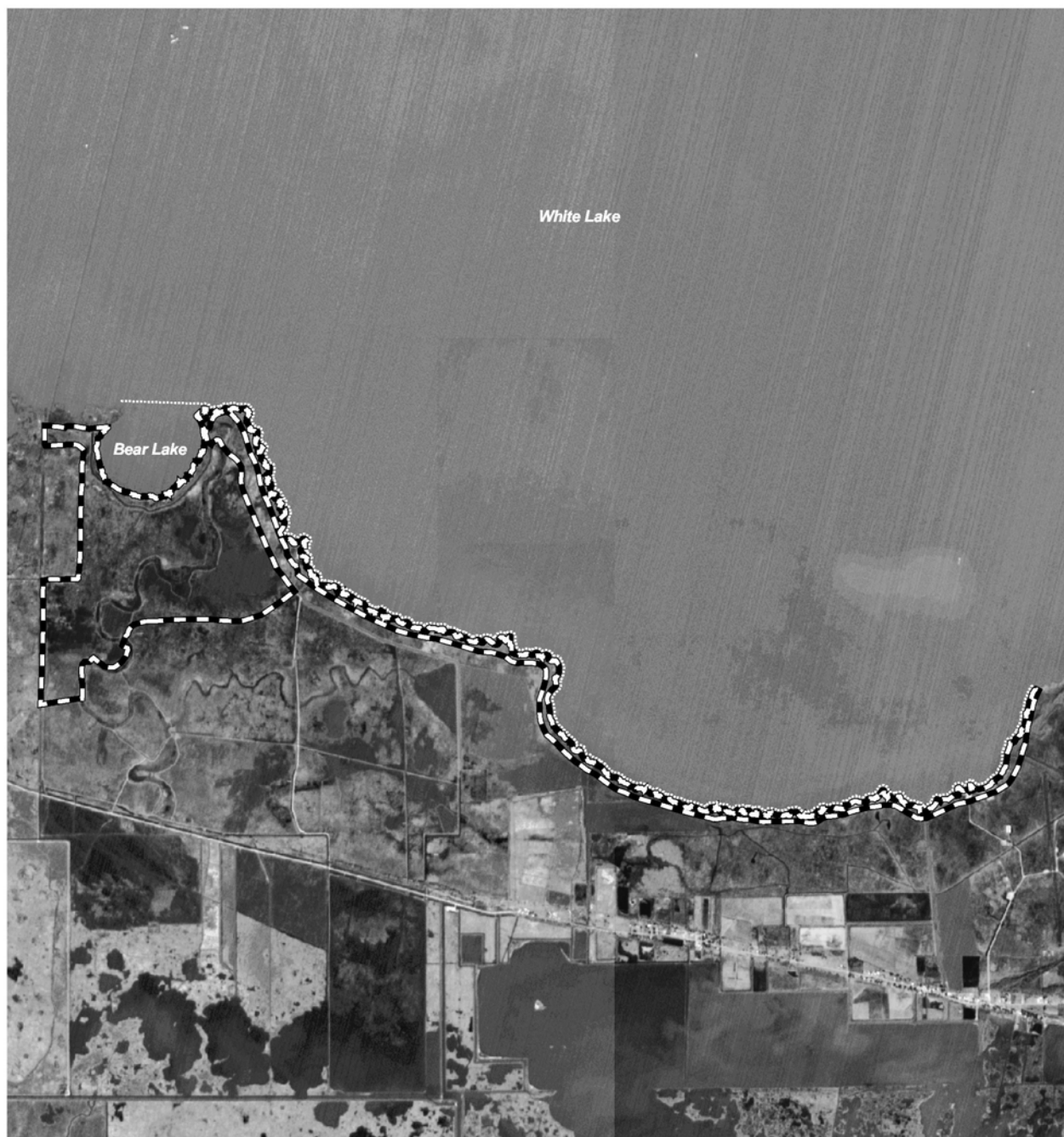
Project Costs – The total fully funded cost is \$25,448,500. The fully funded first cost is \$18,575,500.



Risk/Uncertainty and Longevity/Sustainability – There would be a low degree of risk associated with this project because monitoring has indicated that breakwaters significantly reduce erosion. The project should continue providing benefits for more than 20 years after construction because some rocks will be replaced at years 5 and 15.

Sponsoring Agency and Contact Persons – Corps of Engineers.

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 Project area
 Breakwater

Data Source:
 U.S. Geological Survey
 National Wetlands Research Center
 Coastal Restoration Field Station

LA Department of Natural Resources
 Coastal Restoration Division

Map Date: November 13, 2001
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Image Data:
 1990 SPOT Imagery

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 Region 4

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